REMARKS

The Office Action dated April 29, 2008 has been reviewed and carefully considered. Claims 1-14 have been canceled without prejudice or disclaimer of subject matter. Claims 15-28 remain in the application with claims 15, 19, 22 and 26 being the only independent claims. Reconsideration of the above-identified application, as amended and in view of the following remarks, is respectfully requested.

The Examiner has objected to the title of the invention. The title has been amended to conform to current USPTO practice. With this amendment, Applicant believes that the reason for the Examiner's objection has been overcome. Applicant respectfully requests the objection be withdrawn.

Claims 1-16, 19, 22-23 and 26 were rejected under 35 USC 102(b) as being anticipated by Glynn, U.S. Patent No. 5,181,181 (Hereinafter "Glynn"). Claims 17, 18, 20, 21, 24, 25, 27 and 28 stand rejected under 35 USC 103(a) as being obvious over Glynn in view of Bartlett, U.S. Patent No. 6,347,290.

The present invention provides an input device that gives users more flexibility and convenience by allowing them to move the input device in a three-dimensional space without requiring any flat surface. An example of the usefulness of this device would be that it permits an individual giving a lecture to move about the lecture room and input to a computer without having to return to the location of the computer's mouse.

In particular, claim 1 recites:

An input device, comprising:

a motion detection sensor that is configured to generate three-dimensional (3D) motion data on first, second and third axes, associated with 3D movement of the input device;

means for transmitting the motion data to a computer;

means for causing the computer derive a distance and direction of the movement of the input device in a two-dimensional (2D) plane based on the motion data on the first and second axes;

means for causing the computer to determine whether the motion data on the third axis is greater than a first predetermined value; and

means for causing the computer to move a cursor to a corresponding position based on the distance and direction derived in the 2D plane, upon the computer determining the motion data on the third axis is greater than the first predetermined value.

As recited in claim 15 and described in paragraphs [0026] and [0027] of the published application, the input device determines a distance and direction of its movement in a 2D plane. However, the corresponding computer cursor movement occurs only if "the motion data on the third axis is greater than a first predetermined value" (claim 15, lines 9-10). That is:

"A determination is made as to whether the movement along the z axis is greater than a predetermined absolute value z_{min} (e.g., 3 cm) (step 112). If the determination is negative, it indicates that cursor action is not intended" [0026].

Glynn et al. teaches "a mouse which senses six degrees of motion arising from movement of the mouse within three dimensions. A hand-held device includes three accelerometers for sensing linear translation along three axes of a Cartesian coordinate system and three angular rate sensors for sensing angular rotation about the three axes. Signals produced by the sensors are processed to permit the acceleration, velocity and relative position and attitude of the device to be conveyed to a computer. Thus, a person may interact with a computer with six degrees of motion in three-dimensional space" (Glynn Abstract). Glynn's invention attempts to address shortcomings in the prior art with respect to "the definition of positional coordinates in three dimensions" (col. 1, lines 47-48). Glynn further states: "It is another object of the present invention to provide a new and improved apparatus and method for controlling movement of a cursor, represented on a computer display in terms of three-dimensional spatial coordinates" (col. 2, lines 56-61).

The present invention is clearly distinguishable from the teachings of Glynn. In particular, while the input device of the current invention recognizes 3-dimensional movement, it does not do so with an intent to move a 3-dimensional cursor or in anyway interact with a computer representation in 3-dimensional space.

In the rejection of claim 15, Paragraph 4 of the Office Action combines the teachings of col. 7 lines 21-33 of Glynn with those of col. 10, lines 43-50 to address the features of the invention whereby movement in a 2-dimensional plane is utilized only if movement in the 3rd dimension exceeds a threshold. For the reasons given below, applicant submits such a combination fails to teach the claimed invention.

Col. 7, lines 21-33 address 3-dimensional motion. There is nothing contained in this sited passage which specifically teaches "distance and direction of the movement of the input device in a two-dimensional plane" as recited in claim 15. While col. 10 lines 64-68 describe how an operator "can restrict the conveyance of motion to the computer 23 to two dimensional space," it does so by requiring "mouse motion of a given degree, or degrees, of freedom **to be ignored by process 3.3** [emphasis added]" (col. 10, lines 64-66). Glynn fails to teach how motion data in a third dimension is used in conjunction with moving a cursor in 2-dimensional space. Moreover, for the reasons given above, Glynn teaches away from this feature.

The Office Action further points to col. 7, lines 44-50 as teaching the feature of claim 15 of a "means for causing the computer to determine whether the motion data on the third axis is greater than a first predetermined value." This cited passage relates to "errors which might be induced by sensor drift, earth rotational effects and low level noise signals that may be present when an operator is not moving the mouse" (col. 7, lines 48-50). Accordingly, when Glynn recites a threshold level for "motion signals [emphasis added]," he clearly intends a combination of signals in various dimensions, as

the types of errors noted above cannot be detected by threshold comparison of motion data of one axis alone. Moreover, Glynn fails to teach the claim feature whereby a single axis threshold determination is used as a trigger for cursor movement that corresponds to detected motion measurements related to the other two dimensions.

For at least the reasons stated above Glynn fails to teach the feature of claim 15 wherein an input device comprises a means for causing the computer to determine whether the motion data on the third axis is greater than a first predetermined value; and means for causing the computer to move a cursor to a corresponding position based on the distance and direction derived in the 2D plane, upon the computer determining the motion data on the third axis is greater than the first predetermined value.

A claim is anticipated only if each and every element recited therein is expressly or inherently described in a single prior art reference. Glynn cannot be said to anticipate the present invention, because Glynn fails to disclose each and every element recited. As shown, Glynn fails to disclose movement of a cursor in 2-dimensional space based on a result of a threshold comparison of movement of the device along a third axis. Independent claims 19, 22 and 26 contain similar features and each is patentable over Glynn for at least the same reasons.

Having shown that Glynn fails to disclose each and every element claimed, applicant submits that claims 15, 19, 22 and 26 are allowable over Glynn. Applicant

respectfully requests reconsideration, withdrawal of the rejection and allowance of claims 15, 19, 22 and 26.

With regard to claims 16-18, 20-28, 23-25 and 27, these claims ultimately depend from one of the independent claims, which have been shown to be not anticipated and allowable in view of the cited references. Accordingly, 16-18, 20-28, 23-25 and 27 are also allowable by virtue of their dependence from an allowable base claim.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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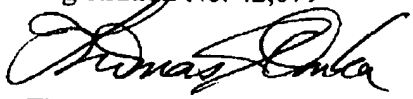

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